Service Manual

Lexmark™ C520, C522, C524, C530, C532, C534

5022-xxx

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1. General information

The Lexmark™ C52*x* and C53*x* color laser printers deliver superior text and brilliant graphics. The following models are available.

Model name	Configuration	Machine type
Lexmark C520n	Network	5022-010
Lexmark C522n	Network	5022-210
Lexmark C524	Non-network	5022-400
Lexmark C524n	Network	5022-410
Lexmark C524dn	Network	5022-430
Lexmark C530dn	Duplex, network	5022-130
Lexmark C532n	Network	5022-310
Lexmark C532dn	Duplex, network	5022-330
Lexmark C534n	Network	5022-510
Lexmark C534dn/dtn	Duplex, network (550-sheet tray)	5022-530

Maintenance approach

The diagnostic information in this manual leads you to the correct field replaceable unit (FRU) or part. Use the error code charts, symptom tables, and service checks to determine the symptom and repair the failure. You may find that the removals in the Repair information chapter will help you identify parts. After you complete the repair, perform tests as needed to verify the repair. Begin at **"Start" on page 2-1**.

Options and features

The following options or features are available. Some options are not available in every country. Contact your point of purchase for options available in your country.

- Memory options of 128MB, 256MB, and 512MB SDRAM
- Flash memory options of 32MB and 64MB
- Hard disk—40GB with adapter (models C524, C524n, and C524dn and models C534n, C534dn, and C534dtn)
- Media handling operations
  - 500-sheet optional tray assembly for models C522n, C524, C524n, and C524dn and 550-sheet optional tray assembly for models C532n, C532dn, C534n, and C534dn.
  - Duplex—not an option, available only on models C524dn, C524dtn, C530dn, C532dn, and C534dn/dtn (factory installed).
- Integrated network options
  - Token-Ring
  - Ethernet
  - External serial adapter
  - PRESCRIBE card assembly
  - Bar code card assembly
  - Parallel interface card
  - MarkNet™ Print Servers
  - Lexmark PrintCryption™ card
  - Lexmark Forms card (single-byte and Simplified Chinese) on models C534n, C534dn, and C534dtn

  - Lexmark Bar Code Card is available on models C534n, C534dn, and C534dtn
  - Lexmark ImageQuick™ Card is available for the models C534n, C534dn, and C534dtn
- DBCS font cards
  - Simplified Chinese
  - Traditional Chinese
  - Japanese
  - Korean

Specifications

Resolution

- 1200 x 1200 dpi
- 4800CQ

Data streams

- PostScript 3 emulation
- PCL 5c and 6 (XL) emulation
- PDF 1.5 emulation
- PPDS (if activated)

Memory configuration

Memory type	Models									
	C520n	C522n	C524	C524n	C524dn	C530dn	C532n	C532dn	C534n	C534dn/dtn
Standard DRAM (MB)	128	128	64	128	128	128	128	128	128	256
Optional memory (MB) (100 pin DDR SDRAM unbuffered DIMMs)	128, 256, and 512 MB available									
Maximum (MB)	640	640	576	640	640	640	640	640	640	768
Optional flash memory	32 and 64 MB available									

Performance factors

Performance speed depends on:

- Interface to the host (USB, serial, parallel, network)
- Host system and application
- Page complexity and content of the page
- Printer options installed or selected
- Available memory in the printer
- Media size and type
- Resolution

Power requirements

Average nominal power requirements for the base printer configuration (110 volt). Power levels are shown in watts (W). Maximum current is given in Amperes (A).

Printing states	Lexmark C524, C524n, C524dn, C524dtn	Lexmark C520n, C522n	Lexmark C534n, C534dn, C534dtn	Lexmark C530dn, C532n, C532dn
Idle—average power				
Power Saver on	<18 W	<16 W	<18 W	<17 W
Power Saver off	105 W	105 W	120 W	120 W
Printing—average power				
Basic printer	350 W	350 W	410 W	410 W
All options	375 W	350 W	410 W	410 W
Printing—maximum average current				
100 V	4.5 A	4.5 A	2.5 A	2.5 A
110 V	4.0 A	4.0 A	5.0 A	5.0 A
220 V	2.0 A	2.0 A	5.5 A	5.5 A

Electrical specifications

Low voltage model

- 110 to 127 V ac at 47 to 63 Hz nominal
- 99 to 137 V ac, extreme

High voltage model

- 220 to 240 V ac at 47 to 63 Hz nominal (not available in all countries)
- 198 to 259 V ac, extreme

100 V model

- 100 V ac at 47 to 63 Hz nominal
- 90 to 110 V ac, extreme

Notes:

- Using a 220 to 110 power converter with the 110 V printer is not recommended.
- Using an inverter (12 V dc to 120 V ac for example) to power the printer is not recommended.

Environment

Environment	Specifications
Operating	
Air Temperature—Product Operating	15.6 to 32.2° C (60 to 90.0° F)
Air Temperature—Product Power Off	10.0 to 40.0° C (50 to 104.0° F)
Air Relative Humidity	Relative Humidity 8 to 80%
Wet Bulb Temperature—Product Operating	22.8° C (73.0° F) Maximum
Web Bulb Temperature—Product Power Off	26.7° C (80.1° F) Maximum
Altitude	0 to 3048 meters (10,000 feet)
Atmospheric Pressure	74.6 kPa
Ambient Operating Environment†	15.6 to 32.2° C (60 to 90°F) and 8% to 80% RH
Shipping / Storage	
Cartridges	-40° C to +40° C (104° Fahrenheit)
Printer with Cartridges	-40° C to +40°C (104° Fahrenheit)
Printer without Cartridges	-40° C to +40°C (104° Fahrenheit)
Air Relative Humidity	Relative Humidity 8 to 80%
Altitude	10,300 meters (34,000 feet)
Web Bulb Temperature—Product Power Off	26.7° C (80.1° F) Maximum
† In some cases performance specifications (such as paper OCF, EP cartridge usage) are specified to be measured at an ambient condition.	

Acoustics

All measurements are made in accordance with ISO 7779 and conform with ISO 9296.

Printer	Operating mode	1-Meter Average Bystander Sound Pressure @4800 CQ	Declared Sound Power Level @4800 CQ
C520n, C522n, C524n	Printing	51 dBA	
	Idle	32 dBA	
C524dn, C524dtn	Printing	51 dBA	
	Duplex printing	52 dBA	
	Idle	32 dBA	
C532n, C534n	Mono printing	53 dBA	6.7B
	Color printing	51 dBA	6.6B
	Idle	31 dBA	4.6B
C530dn, C534dn, C534dtn	Mono printing	53 dBA	6.7B
	Color printing	51 dBA	6.6B
	Duplex printing	53 dBA	6.7B
	Idle	31 dBA	4.6B

Dimensions

Description	Models	Height	Width	Depth	Weight
Basic printer with no extensions	C520, C522n, C524, C524n, C524dn	19 in. (484 mm)	17.3 in. (440 mm)	16.1 in. (408 mm)	57.5 lb (26.1 kg)
	C532n, C534n	19 in. (484 mm)	17.3 in. (440 mm)	16.1 in. (408 mm)	57.0 lb (25.9 kg)
	C530dn, C532dn, C534dn	19 in. (484 mm)	17.3 in. (440 mm)	16.1 in. (408 mm)	58.8 lb (26.7 kg)
Printer with exit tray extended	C520, C522n, C524, C524n	19 in. (484 mm)	17.3 in. (440 mm)	20.2 in. (512 mm)	57.5 lb (26.1 kg)
	C532n, C534n	19 in. (484 mm)	17.3 in. (440 mm)	20.2 in. (512 mm)	57.0 lb (25.9 kg)
	C530dn, C524dn, C534dn	19 in. (484 mm)	17.3 in. (440 mm)	20.2 in. (512 mm)	58.8 lb (26.7 kg)
Printer, duplex unit, 500-sheet assembly	C524dtn	24 in. (610mm)	17.3 in. (440 mm)	22 in. (558 mm)	64.8 lb (29.4 kg)
Printer, duplex unit, 550-sheet assembly	C534dtn	24 in. (610mm)	17.3 in. (440 mm)	22 in. (558 mm)	64.0 lb (29.0 kg)
Optional 500-sheet assembly only	C52x models	5 in. (127 mm)	16.5 in. (420 mm)	20.4 in. (518 mm)	7.25 lb (3.29 kg)
Optional 550-sheet assembly only	C53x models	5 in.	16.5 in. (420 mm)	20.4 in.	7.0 lb (3.2 kg)
MPF configuration (printer with multipurpose feeder extended and exit tray extended)	C52x, C53x models	19 in. (484 mm)	17.3 in. (440 mm)	26.6 in. (676 mm)	57.5 lb (26.1 kg)
Primary tray configuration (printer with paper tray adjuster extended and output bin installed)	A4/letter size media	19 in. (484 mm)	17.3 in. (440 mm)	20.2 in. (512 mm)	—
	Legal size media	19 in. (484 mm)	17.3 in. (440 mm)	21.3 in. (540 mm)	—
Note: A buffer of 12 in. (304.8 mm) is needed on the back of the printer.					

Media specifications

Paper and specialty media guidelines

Media guidelines

Media characteristics

The following media characteristics affect print quality and reliability. Consider these characteristics when evaluating new media stock.

Weight

The printer can automatically feed media weights from 60 to 176 g/m^2 (16 to 47 lb bond) grain long. Media lighter than 60 g/m^2 (16 lb) might not be stiff enough to feed properly, causing jams. For best performance, use 90 g/m^2 (24 lb bond) grain long media. For media smaller than 182 x 257 mm (7.2 x 10.1 in.), we recommend 90 g/m^2 or heavier media.

Curl

Curl is the tendency for media to curl at its edges. Excessive curl can cause media feeding problems. Curl can occur after the media passes through the printer, where it is exposed to high temperatures. Storing media unwrapped in hot, humid, cold, or dry conditions, even in the trays, can contribute to media curling prior to printing and can cause feeding problems.

Smoothness

Media smoothness directly affects print quality. If media is too rough, toner cannot fuse to it properly. If media is too smooth, it can cause media feeding or print quality issues. Always use media between 100 and 300 Sheffield points; however, smoothness between 150 and 200 Sheffield points produces the best print quality.

Moisture content

The amount of moisture in media affects both print quality and the ability of the printer to feed the media correctly. Leave media in its original wrapper until it is time to use it. This limits the exposure of media to moisture changes that can degrade its performance.

Condition media before printing by storing it in its original wrapper in the same environment as the printer for 24 to 48 hours before printing. Extend the time several days if the storage or transportation environment is very different from the printer environment. Thick media may also require a longer conditioning period.

Grain direction

Grain refers to the alignment of the media fibers in a sheet of media. Grain is either grain long, running the length of the media, or grain short, running the width of the media. For 60 to 90 g/m^2 (16 to 24 lb bond) media, use grain long fibers.

Fiber content

Most high-quality xerographic media is made from 100% chemically treated pulped wood. This content provides the media with a high degree of stability resulting in fewer media feeding problems and better print quality. Media containing fibers such as cotton possesses characteristics that can negatively affect media handling.

Unacceptable media

The following media types are not recommended for use with the printer:

- Chemically treated media used to make copies without carbon paper, also known as carbonless papers, carbonless copy paper (CCP), or no carbon required (NCR) paper
- Preprinted media with chemicals that may contaminate the printer
- Preprinted media that can be affected by the temperature in the printer fuser
- Preprinted media that requires a registration (the precise print location on the page) greater than ±2.3 mm (±0.09 in.), such as optical character recognition (OCR) forms
  In some cases, registration can be adjusted with a program to successfully print on these forms.
- Coated media (erasable bond), synthetic media, thermal media
- Rough-edged, rough, or heavily textured surface media, or curled media
- Recycled media containing more than 25% post-consumer waste that does not meet DIN19 309
- Media weighing less than 60 g/m^2 (16 lb)
- Multiple-part forms or documents

Selecting media

Using appropriate media prevents jams and helps ensure trouble-free printing.

To help avoid jams and poor print quality:

- Always use new, undamaged media.
- Before loading media, know the recommended print side of the media. This information is usually indicated on the media package.
- Do not use media that has been cut or trimmed by hand.
- Do not mix media sizes, types, or weights in the same source; mixing results in jams.
- Do not use coated media unless they are specifically designed for electrophotographic printing.

Selecting preprinted forms and letterhead

Use these guidelines when selecting preprinted forms and letterhead:

- Use grain long papers for best results for 60 to 90 g/m^2 weights.
- Use only forms and letterhead printed using an offset lithographic or engraved printing process.
- Avoid papers with rough or heavily textured surfaces.

Use papers printed with heat-resistant inks designed for use in xerographic copiers. The ink must be able to withstand temperatures up to 180°C (356°F) without melting or releasing hazardous emissions. Use inks that are not affected by the resin in toner. Inks that are oxidation-set or oil-based generally meet these requirements; latex inks might not. When in doubt, contact the paper supplier.

Preprinted papers such as letterhead must be able to withstand temperatures up to 180°C (356°F) without melting or releasing hazardous emissions.

Using media

Using letterhead

Check with the manufacturer or vendor to determine whether the chosen preprinted letterhead is acceptable for laser printers.

Page orientation is important when printing on letterhead. Use the following table for help when loading letterhead.

Process or paper source	Print side	Top of page
Tray 1	Letterhead faceup	Letterhead goes toward the front of the tray
Tray 2	Letterhead faceup	Letterhead goes toward the front of the tray
Duplex (two-sided) printing from trays 1 and 2	Letterhead facedown	Letterhead goes toward the rear of the tray
Multipurpose feeder	Letterhead facedown	Letterhead top edge enters first
Manual feeder	Letterhead facedown	Letterhead top edge enters first
Duplex (two-sided) printing from the multipurpose feeder	Letterhead faceup	Letterhead top edge enters last

Using transparencies

Print samples on the transparencies being considered for use before buying large quantities.

When printing on transparencies:

- From MarkVision™ Professional, the printer software, or the control panel, set the Paper Type to Transparency.
- Feed transparencies from the standard tray (Tray 1) or the multipurpose feeder.
- Use transparencies designed specifically for laser printers. Check with the manufacturer or vendor to ensure transparencies are able to withstand temperatures up to 180°C (356°F) without melting, discoloring, offsetting, or releasing hazardous emissions.
- Use transparencies that are 0.12–0.14 mm (4.8–5.4 mil) in thickness or 161–179 g/m^2 in weight.
- Print quality and durability depend on the transparencies used.
- To prevent print quality problems, avoid getting fingerprints on the transparencies.
- Before loading transparencies, fan the stack to prevent sheets from sticking together.
- We recommend Lexmark part number 12A8240 for letter-size and Lexmark part number 12A8241 for A4-size transparencies.

Using envelopes

- Print samples on the envelopes being considered for use before buying large quantities.

When printing on envelopes:

- From the control panel, set the Paper Source based on the source in use. From the control panel, the printer software, or MarkVision Professional, set the Paper Type to Envelope, and select the envelope size.
- Use envelopes designed specifically for laser printers. Check with the manufacturer or vendor to ensure the envelopes can withstand temperatures up to 180°C (356°F) without sealing, wrinkling, curling excessively, or releasing hazardous emissions.
- For the best performance, use envelopes made from 90 g/m^2 (24 lb bond) paper. Use up to 105 g/m^2 (28 lb bond) weight for envelopes as long as the cotton content is 25% or less. All-cotton envelopes must not exceed 90 g/m^2 (24 lb bond) weight.
- Use only new envelopes.

- To optimize performance and minimize jams, do not use envelopes that:
  - Have excessive curl or twist
  - Are stuck together or damaged in any way
  - Have windows, holes, perforations, cutouts, or embossing
  - Have metal clasps, string ties, or folding bars
  - Have an interlocking design
  - Have postage stamps attached
  - Have any exposed adhesive when the flap is in the sealed or closed position
  - Have bent corners
  - Have rough, cockle, or laid finishes
- Adjust the width guide to fit the width of the envelopes.

Note: A combination of high humidity (over 60%) and the high printing temperature may wrinkle or seal envelopes.

Using labels

Print samples on the labels being considered for use before buying large quantities. For detailed information on label printing, characteristics, and design, see the *Card Stock & Label Guide* available on the Lexmark Web site at www.lexmark.com/publications.

Note: Vinyl labels are not supported on this product. Use only paper labels.

When printing on labels:

- From the printer software, MarkVision Professional, or the control panel, set the Paper Type to Labels.
- Use only letter-, A4-, and legal-size label sheets.
- Use labels designed specifically for laser printers. Check with the manufacturer or vendor to verify that label adhesives, face sheet (printable stock), and topcoats can withstand temperatures up to 180°C (356°F) and pressure up to 30 psi without delaminating, oozing around the edges, or releasing hazardous fumes. Do not use vinyl labels.
- Do not use labels with slick backing material.
- Use full label sheets. Partial sheets may cause labels to peel off during printing, resulting in a jam. Partial sheets also contaminate the printer and the cartridge with adhesive, and could void the printer and cartridge warranties.
- Do not print within 1 mm (0.04 in) of the edge of the label, of the perforations, or between die-cuts of the label.
- Be sure adhesive backing does not reach to the sheet edge. Zone coating of the adhesive at least 1 mm (0.04 in) away from edges is recommended. Adhesive material contaminates the printer and could void the warranty.
- If zone coating of the adhesive is not possible, remove a 3 mm (0.125 in.) strip on the leading and driver edge, and use a non-oozing adhesive.
- Portrait orientation works best, especially when printing bar codes.
- Do not use labels with exposed adhesive.

Using card stock

Card stock is heavy, single-ply print media. Many of its variable characteristics, such as moisture content, thickness, and texture, can significantly impact print quality.

Print samples on the card stock being considered for use before buying large quantities.

When printing on card stock:

- From MarkVision Professional, the printer software, or the control panel:
  - Set the Paper Type to Card Stock.
  - Set the Paper Weight to Card Stock Weight.
  - Set the Card Stock Weight to Normal or Heavy.

- Be aware that preprinting, perforation, and creasing may significantly affect the print quality and cause jams or other paper handling problems.
- Check with the manufacturer or vendor to ensure the card stock can withstand temperatures up to 180°C (356°F) without releasing hazardous emissions.
- Do not use preprinted card stock manufactured with chemicals that may contaminate the printer. Preprinting introduces semi-liquid and volatile components into the printer.
- Use grain long card stock when possible.

Storing media

Use these media storage guidelines to help avoid jams and uneven print quality:

- For best results, store media where the temperature is 21°C (70°F) and the relative humidity is 40%.
- Store media in cartons when possible, on a pallet or shelf, rather than on the floor.
- Store individual packages of media on a flat surface.
- Do not store anything on top of individual media packages.

Supported sizes

The following tables provide information on standard and optional sources for both input and output trays and bins.

Media Sizes	**250 Tray**	**MPF**	**Duplex**	**500 Tray**	**Manual Feed Slot**
A4 210 x 297 mm	✓	✓	✓	✓	✓
A5 148 x 210 mm	✓	✓	✓	✓	✓
JIS B5 182 x 257 mm	✓	✓	✓	✓	✓
Statement[1] 5.5 x 8.5 in.		✓	✓		✓
Letter 8.5 x 11 in.	✓	✓	✓	✓	✓
Folio[1] 8.5 x 13 in.	✓	✓	✓	✓	✓
Legal 8.5 x 14 in.	✓	✓	✓	✓	✓
Executive 7.25 x 10.5 in.	✓	✓	✓	✓	✓
Universal[1] (width)					
123.8 to 215.9 x 355.6 mm; 3.875 x 4.875 to 8.5 x 14 in.		✓			
152.4 to 215.9 x 355.6 mm; 3.875 x 6 to 8.5 x 14 in.		✓			✓
139.7 x 210 to 215.9 x 355.6 mm; 5.5 x 8.27 to 8.5 x 14 in.		✓	✓		✓
148 x 210 to 215.9 x 355.6 mm; 5.83 x 8.27 to 8.5 x 14 in.	✓	✓	✓	✓	✓
7 3/4 Envelope 3 7/8 x 7 1/2 in.		✓			✓
9 Envelope 3 7/8 x 8 7/8 in.		✓			✓
10 Envelope 4 1/8 x 9 1/2 in.		✓			✓
DL Envelope 110 x 220 mm		✓			✓
C5 Envelope 162 x 229 mm		✓			✓

Media Sizes (continued)	250 Tray	MPF	Duplex	500 Tray	Manual Feed Slot
B5 Envelope 176 x 250 mm		✓			✓
Other Envelope					
60.5 to 215.9 mm		✓			✓
97.4 to 215.9 mm					✓
[1] Lower feed reliability might be encountered when using non-standard media sizes.					

Media weight

Size	Type		Weight
Primary tray and 500-sheet optional tray			
Letter, Legal, A4	Xerographic and Bonds	Long Grain	16 to 47 lb (60 to 177 g/m^2)
		Short Grain	24 to 58 lb (90 to 218 g/m^2)
	Recycled	Long Grain	20 to 47lb (75 to 177 g/m^2)
		Short Grain	28 to 58 lb (105 to 218g/m^2)
	Card Stock (long and short)	Cover	50 lb/65 lb (135 g/m^2 / 176 g/m^2)
		Index	67 lb/90 lb (120 g/m^2 / 163 g/m^2)
		Tag	74 lb/100 lb (120 g/m^2 / 163 g/m^2)
	Transparency	0.12 to 0.14 mm 4.8 to 5.4 mil	161 to 179 g/m^2
A5, B5, JIS-B5, Exec., Statement, Folio	Xerographic and Bonds	Long Grain	20 to 47 lb (75 to 177 g/m^2)
		Short Grain	24 to 58 lb (90 to 218 g/m^2)
Multipurpose feeder and manual feed slot			
Letter, Legal, A4	Xerographic and Bonds	Long Grain	20 to 47 lb (75 to 177 g/m^2)
		Short Grain	24 to 58 lb (90 to 218 g/m^2)
	Recycled	Long Grain	20 to 47 lb (75 to 177 g/m^2)
		Short Grain	28 to 58 lb (105 to 218 g/m^2)
	Card Stock (long/short)	Cover	50 lb/ 65 lb (135 g/m^2 / 176 g/m^2)
		Index	67 lb/ 90 lb (120 g/m^2 / 163 g/m^2)
		Tag	74 lb/ 100 lb (120 g/m^2 /163 g/m^2)
	Labels (max)	Paper	35 lb (131 g/m^2)
		Vinyl	Not Supported
Letter, Legal, A4 (continued)	Transparency	Thickness: 0.12 to 0.13 mm	161 to 179 g/m^2

Media weight

Size	Type		Weight
A5, B5, JIS-B5, Exec., Statement, Folio	Xerographic and Bonds	Long Grain	20 to 47 lb (75 to 177 g/m^2)
		Short Grain	24 to 58 lb (90 to 218 g/m^2)
Envelope	Monarch, 7 ¾, #9, #10, DL, B5, C5, C6-C5, C6, B6		16 to 28 lb (60 to 105 g/m^2)
Duplex unit			
A5, B5, Executive, Statement, Folio, Letter, A4 and Legal	Xerographic and Bonds	Long Grain	20 to 32 lb (75 to 120 g/m^2)
		Short Grain	24 to 32 lb (90 to 120 g/m^2)
	Recycled	Long Grain	20 to 32 lb (75 to 120 g/m^2)
		Short Grain	28 to 32 lb (105 to 120 g/m^2)

Input and output capacities

The following table outlines the input and output source capacities by media type.

Source	Media	Maximum height	Approximate reference capacity
Input			
Standard 250-sheet tray[2]	Plain paper [1]	54 mm	250 sheets (75 g/m^2)
Optional 500-sheet tray (C52x) or Optional 550-sheet tray (C53x)[2]	Plain paper [1]	57.6 mm	500 sheets (80 g/m^2) 550 sheets (75 g/m^2)
Multipurpose feeder[2]	Plain paper	10 mm	100 sheets (75 g/m^2)
	Envelopes		10 envelopes (75 g/m^2)
	Other		Various quantities
Manual feed slot	Any media	Single sheet	1 sheet
Output			
Standard 250-sheet output bin [1, 2]	Plain Paper	35 mm	250 sheets (75 g/m^2)
	Other		Various quantities

[1] 20 lb xerographic paper at ambient environment

[2] Capacity may vary and is subject to media specifications and printer operating environment.

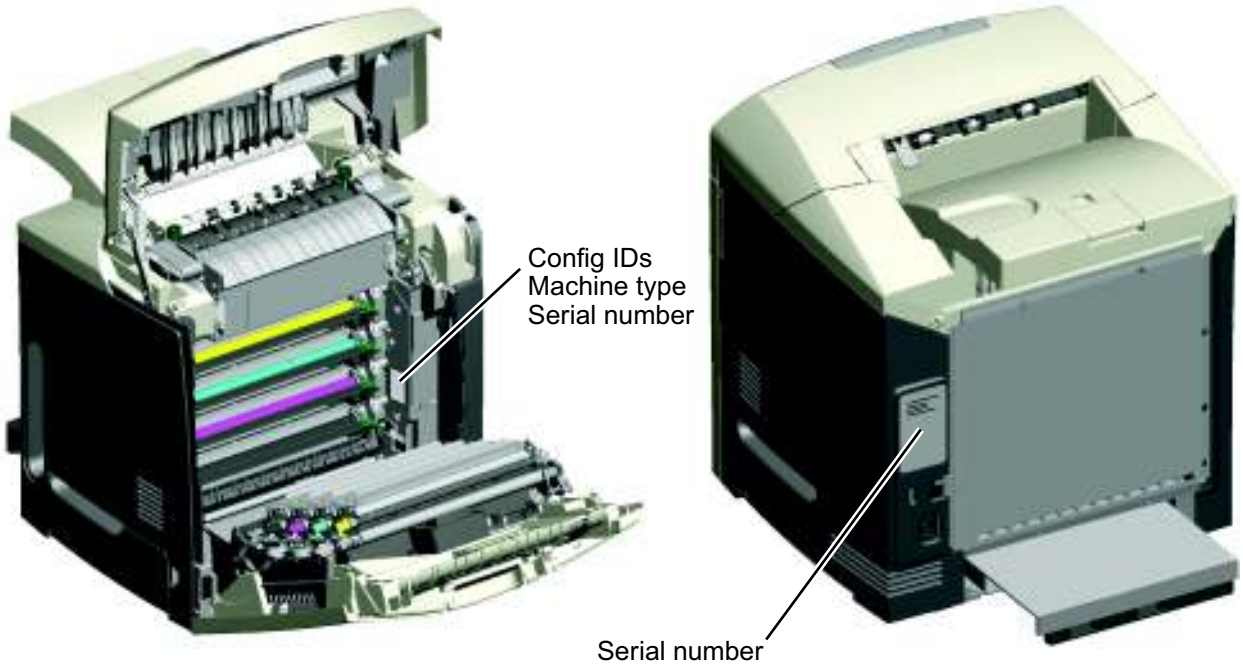
Note: Paper input is limited to below the input source indicator on the tray.

Print area

The printable area is limited to within 4.2 mm (0.167 in.) of all edges of the media. Any information placed outside this specified printable area does not print.

Serial number and machine type

The serial number is located on the label on the rear of the right cover and on the service tag located on the inside right frame of the printer. The service tag also contains the configuration IDs, machine type, and model information.



Tools required for service

Flat-blade screwdriver
#1 Phillips screwdriver, magnetic
#2 Phillips screwdriver, magnetic
#2 Phillips screwdriver, magnetic short-blade
Needlenose pliers
Diagonal side cutters
Spring hook
Feeler gauges
Analog or digital multimeter
Parallel wrap plug 1319128
Twinax/serial debug cable 1381963
Coax/serial debug cable 1381964

Acronyms

C	Cyan
CRU	Customer Replaceable Unit
DIMM	Dual Inline Memory Module
DRAM	Dynamic Random Access Memory
EP	ElectroPhotographic (process)
EPROM	Erasable Programmable Read-Only Memory
ESD	Electrostatic Discharge
FRU	Field Replaceable Unit
GB	Gigabyte
HVPS	High Voltage Power Supply
K	Black
LASER	Light Amplification by Stimulated Emission of Radiation
LCD	Liquid Crystal Display
LED	Light-Emitting Diode
LVPS	Low Voltage Power Supply
M	Magenta
MPF	Multipurpose Feeder
MS	Microswitch
NVRAM	Nonvolatile Random Access Memory
OPT	Optical Sensor
PC	Photoconductor
pel	Picture element
POR	Power-On Reset
POST	Power-On Self Test
PWM	Pulse Width Modulation
RIP	Raster Imaging Processor
SDRAM	Synchronous Dual Random Access Memory
SIMM	Single Inline Memory Module
SRAM	Static Random Access Memory
TAR	Toner Adder Roller
V ac	Volts alternating current
V dc	Volts direct current
Y	Yellow